

Amendments to the Claims

A complete list of pending claims follows, with indicated amendments:

1-6. (Cancelled).

7. (Currently Amended) The method for adjusting the current limit in a power supply of claim 6 20, wherein the step of converting the intermediate value to a digital value representative of the voltage level of the input line comprises the steps of:

converting the intermediate value from an analog signal to an intermediate digital value;

setting the resistance level of a potentiometer in relation to the intermediate digital value; and

producing the digital value by applying a voltage divider to the second reference voltage, wherein the resistance level of the potentiometer is used to produce a voltage drop in the voltage divider.

8. (Currently Amended) The method for adjusting the current limit in a power supply of claim 6 20, further comprising the step of providing the overcurrent set point signal to a controller of the power supply.

9. (Currently Amended) A system for adjusting the current limit of a power supply in relation to the voltage characteristics of an input line, comprising:

a voltage identification module coupled to the input line, the ~~peak detection unit~~ voltage identification module providing an output signal representative of the voltage level of the input line, wherein the voltage identification module comprises a converter for converting the output of the peak detection circuit to a digital signal representative of the voltage level of the input line; and

a current limit module that receives the output signal of the voltage identification module as an input and provides as an output a current limit signal that has a value that is related to the voltage characteristics of the input line.

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10. (Original) The system for adjusting the current limit of a power supply of claim 9, wherein the voltage identification module comprises a peak detection circuit providing an output signal that is representative of the voltage level of the input line.

11. (Original) The system for adjusting the current limit of a power supply of claim 10, wherein the peak detection circuit comprises an amplifier whose output is a signal that is representative of the difference between a rectified voltage level from the input line and a reference voltage.

12. (Cancelled).

13. (Original) The system for adjusting the current limit of a power supply of claim 9, wherein the current limit module comprises:

a variable resistor, the resistance value of which is set on the basis of the value of the output signal from the voltage identification module; and

an amplifier that produces a current limit signal from a comparison to the difference between a reference voltage and a second voltage that is related to the reference voltage by the voltage drop across the variable resistor.

14. (Original) The system for adjusting the current limit of a power supply of claim 13, wherein the variable resistor comprises a digital potentiometer.

15. (Original) The system for adjusting the current limit of a power supply of claim 13, wherein the current limit signal is provided to a controller of the power supply.

16. (Currently Amended) A method for adjusting the current limit of a power supply, comprising the steps of:

identifying the voltage level of the input line to the power supply, wherein the step of identifying the voltage level comprises,

performing a rectification function on the input line;

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comparing the input line to a first reference voltage to produce a first intermediate signal representative of the voltage level of the input line; and

converting the first intermediate signal from an analog signal to a digital signal; and

establishing a current limit signal in relation to a maximum current limit associated with the voltage level of the input line.

17. (Original) The method for adjusting the current limit of a power supply of claim 16, further comprising the step of providing the current limit signal to a controller of the power supply.

18. (Cancelled).

19. (Cancelled).

20. (Currently Amended) The method for adjusting the current limit of a power supply of claim ~~49~~ 16, wherein the step of establishing a current limit signal comprises the step of producing a current limit signal from a comparison of a second reference voltage and an intermediate voltage potential derived from applying a voltage drop across a variable resistor.

21. (New) A method for adjusting the current limit in a power supply, comprising:
identifying the voltage level of the input line to the power supply, wherein identifying the voltage level of the input line comprises,

rectifying the input line voltage;

comparing the rectified input line voltage to a first reference voltage; and

producing an intermediate value that is representative of the voltage level of the input line;

setting a current limit at the output of the power supply, wherein the current limit at the output of the power supply is set in relation to the voltage level of the input line to the power supply such that the current limit is set at a lower level when the voltage level of the input line is at a lower level, wherein the setting the current limit comprises setting an overcurrent set

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point on the basis of the intermediate value, and wherein setting an overcurrent set point comprises,

converting the intermediate value to a digital value representative of the voltage level of the input line; and

comparing the digital value to a second reference voltage to produce a signal comprising the overcurrent set point; and

adjusting the current limit at the output of the power supply in response to a change in the voltage level of the input line to the power supply.

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